



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: PRASHER

Serial No.: Not yet assigned

Filing Date: Filed herewith

For: COOLING AN INTEGRATED CIRCUIT  
DIE WITH COOLANT FLOW IN A  
MICROCHANNEL AND A THIN FILM  
THERMOELECTRIC COOLING  
DEVICE IN THE MICROCHANNEL

Examiner: Not yet assigned

Group Art Unit: Not yet assigned

INTEL Docket No.: P18285

MS PATENT APPLICATION

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

UTILITY PATENT APPLICATION TRANSMITTAL  
(Large Entity)

Sir:

Transmitted herewith for filing under 35 USC 111(a) and 37 CFR 1.53(b) is a new utility patent application for an invention entitled: **COOLING AN INTEGRATED CIRCUIT DIE WITH COOLANT FLOW IN A MICROCHANNEL AND A THIN FILM THERMOELECTRIC COOLING DEVICE IN THE MICROCHANNEL**

and invented by: **PRASHER**

Enclosed are:

1. ☒ Filing Fee as calculated and transmitted as described below
2. ☒ Specification having 15 pages and including the following:
  - a. ☒ Descriptive Title of the Invention

- b. ☐ Cross references to Related Applications (*if applicable*)
  - c. ☐ Statement Regarding Federally-sponsored Research/Development
  - d. ☐ Reference to Microfiche Appendix (*if applicable*)
  - e. ☒ Background of the Invention
  - f. ☐ Brief Summary of the Invention
  - g. ☒ Brief Description of the Drawings (*if drawings filed*)
  - h. ☒ Detailed Description
  - i. ☒ Claim(s) as Classified Below
  - j. ☒ Abstract of the Disclosure
3. ☒ Drawing(s) (*when necessary as prescribed by 35 USC 113*)
- a. ☒ Formal          Number of Sheets 6
  - b. ☐ Informal          Number of Sheets
4. ☒ Oath or Declaration
- a. ☒ Newly executed (*original or copy*)          ☐ Unexecuted
  - b. ☐ Copy from a prior application (37 CFR 1.63(d))
  - c. ☒ With Power of Attorney          ☐ Without Power of Attorney
  - d. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the Prior Application, see 37. CFR 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference (*usable if Box 4b is checked*)  
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. ☒ Assignment Papers (*cover sheet & documents(s)*)
7. ☐ 37 CFR 3.73(B) Statement (*when there is an assignee*)
8. ☐ English Translation Document (*if applicable*)
9. ☐ Information Disclosure Statement/PTO-1449          ☐ Copies of IDS Citations
10. ☐ Preliminary Amendment
11. ☒ Acknowledgement Postcard
12. ☒ Mailed Via
- ☐ First Class          ☒ Express Mail (*Specify Label No.*) **EL963890492US**
13. ☐ Certified Copy of Priority Document(s) (*if foreign priority is claimed*)
14. ☐ Request and Certification under 35 USC 122(b)(2)(B)(i) (*attach PTO/SB/35*)
15. ☒ Additional Enclosures: Credit Card Payment Form

**FEE CALCULATION**

For	No. Filed	No. Allowed	No. Extra	Rate	Fee
Total Claims	28	- 20	8	\$ 18.00	\$ 144.00
Indep. Claims	3	- 3	0	\$ 86.00	\$ 0.00
Multiple Dependent Claims (If applicable, please add \$ 290.00)					\$ 0.00
<b>BASIC FEE</b>					\$ 770.00
<b>OTHER FEE</b> (specify purpose):					\$ 0.00
<b>TOTAL FILING FEE</b>					<b>\$914.00</b>

Credit Card Authorizations for **\$914.00** and **\$40.00** are enclosed.

The Commissioner is hereby authorized to charge and credit Deposit Account No. 50-1852 as described below. A duplicate copy of this sheet is enclosed.

- ☒ Credit any overpayment.
- ☒ Charge any additional fees required under 37 CFR 1.16 and 1.17.

Respectfully submitted,



Nathaniel Levin  
 Registration No. 34,860  
 Attorney for Intel Corporation  
 Buckley, Maschoff & Talwalkar LLC  
 Five Elm Street  
 New Canaan, CT 06840  
 (203) 972-3460

March 29, 2004  
 Date